

## REMARKS/ARGUMENTS

In the Office Action mailed on June 24, 2009, claims 1, 2, 4-9, and 11-15 are rejected. Additionally, claims 3 and 10 are objected to, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, Applicants hereby request reconsideration of the application in view of the below-provided remarks. No claims are amended, added, or canceled.

### Allowable Subject Matter

Applicants appreciate the Examiner's review of and determination that claims 3 and 10 recite allowable subject matter. In particular, the Office Action states that claims 3 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

At this time, Applicants choose not to rewrite claims 3 and 10. Instead, Applicants respectfully assert that the pending claims are allowable based on the remarks below.

### Claim Rejections under 35 U.S.C. 103

Claims 1, 2, 4-9, 11, and 12 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Okada (U.S. Pat. No. 6,871,001 B1) in view of Linzer (U.S. Pat. No. 6,091,776). Additionally, claims 13-15 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Okada in view of Linzer and further in view of Matsutani et al. (U.S. Pat. No. 7,408,587 B2, hereinafter "Matsutani"). However, Applicants respectfully submit that the pending claims are patentable over the cited references for the reasons provided below.

### Independent Claim 1

Applicants respectfully assert that Okada in view of Linzer fails to teach “*the first ones of the frames containing at least all particular frames whose position relative to the second ones of the frames in the output sequence differs from the position of the particular frames relative to the second ones of the frames in the input sequence*” (emphasis added), as recited in claim 1. Thus, Applicants respectfully assert that a *prima facie* case of obviousness has not been established with respect to claim 1.

The Office Action states that Okada fails to teach the limitation “*the second ones of the frames occurring in the same temporal order in both the input and output sequence, the first ones of the frames containing at least all particular frames whose position relative to the second ones of the frames in the output sequence differs from the position of the particular frames relative to the second ones of the frames in the input sequence*” in claim 1 and Linzer is cited as teaching the above-identified limitation. (See page 3 of the Office Action). However, Applicants respectfully assert that Linzer fails to teach “*the first ones of the frames containing at least all particular frames whose position relative to the second ones of the frames in the output sequence differs from the position of the particular frames relative to the second ones of the frames in the input sequence*” (emphasis added), as recited in claim 1.

Linzer teaches that encoded video pictures are sent from encoders to a decoder buffer for decoding in a decoder. (See Figs. 1 and 2, column 2, lines 48-57, the paragraph between column 2, line 58 and column 3, line 9, and column 3, lines 10-51 of Linzer). Linzer also teaches a decoder buffer for a sequence of pictures that are assigned to picture types I, P or B. (See Fig. 2 and the paragraph between column 2, line 58 and column 3, line 9 of Linzer). Linzer further teaches that the pictures are decoded in the same order that they are encoded. (See Fig. 2 and column 3, lines 8 and 9 of Linzer). For example, as shown in Fig. 2, Linzer teaches that the I, P or B pictures are encoded and decoded in the same order. Because Linzer teaches that the I, P or B pictures are encoded and decoded in the same order, Linzer fails to teach that the I, P or B pictures are encoded and decoded in the different orders. Thus, Applicants respectfully assert that Linzer fails to teach the above-identified limitation in claim 1.

Because Okada in view of Linzer fails to teach the above-identified limitation in claim 1, Applicants respectfully assert that Okada in view of Linzer fails to teach all of the limitations of claim 1. Thus, Applicants respectfully assert that a *prima facie* case of obviousness has not been established with respect to claim 1.

#### Dependent Claims 2-10 and 13

Claims 2-10 and 13 depend from and incorporate all of the limitations of independent claim 1. Thus, Applicants respectfully assert that claims 2-10 and 13 are allowable at least based on an allowable claim 1. Additionally, claims 2, 6, and 13 are allowable for further reasons, as described below.

#### Claim 2

Okada is cited for teaching the limitations of claim 2. (See page 4 of the Office Action). However, Applicants respectfully assert that Okada fails to teach “*a first integrated circuit, which comprises the signal processing circuitry and the second buffer memory, and a second, separate integrated circuit that comprises the first buffer memory*” (emphasis added) in claim 2. Okada teaches that frame buffers (104a) and (104b) and a MPEG decode core circuit (105) of an MPEG video decoder (1) are located on one LSI chip. (See Fig. 1 and column 7, line 60-66 of Okada). Because Okada teaches that the frame buffers (104a) and (104b) and the MPEG decode core circuit (105) are located on a single chip, Applicants respectfully assert that Okada fails to teach that one of the frame buffers (104a) and (104b) is located on separate integrated circuit from the MPEG decode core circuit and the other frame buffer. Thus, Applicants respectfully assert that Okada fails to teach the above-identified limitation in claim 2. As a result, Applicants respectfully assert that that a *prima facie* case of obviousness has not been established with respect to claim 2.

#### Claim 6

Okada is cited for teaching the limitations of claim 6. (See page 5 of the Office Action). However, Applicants respectfully assert that Okada fails to teach that “*the*

*signal processing circuitry writes B frames to the second buffer memory only*” (emphasis added), as recited in claim 6.

As shown in Fig. 4, Okada teaches that within a MPEG video decoder (101), a result of a Motion Compensated prediction (MC) process by an MPEG decode core circuit (105) is transferred to a frame buffer (104) and is stored in any of reference areas (120-122) of the frame buffer (104). (See also the paragraph between column 3, line 66 and column 4, line 3 of Okada). That is, Okada teaches that the MPEG video decoder (101) includes a single frame buffer (104) that stores the result of the Motion Compensated prediction (MC) process by the MPEG decode core circuit (105). Because the frame buffer (104) is the only frame buffer in the MPEG video decoder (101), Applicants respectfully assert that the frame buffer (104) cannot be a second buffer memory, as recited in claim 6. Therefore, Applicants respectfully assert that the frame buffer (104) in Fig. 4 of Okada fails to teach that “*the signal processing circuitry writes B frames to the second buffer memory only*” (emphasis added), as recited in claim 6.

Additionally, Okada teaches that a B-Picture is stored in B-picture storage regions 122(a) and 122(b). (See Fig. 1 and column 9, lines 26-29 of Okada). That is, Okada teaches that the B-Picture is stored in both the frame buffer (104a) and the frame buffer (104b). Because Okada teaches that a B-Picture is stored in both the frame buffer (104a) and the frame buffer (104b), Applicants respectfully assert that the frame buffer (104a) and the frame buffer (104b) in Fig. 1 of Okada fail to teach that “*the signal processing circuitry writes B frames to the second buffer memory only*” (emphasis added), as recited in claim 6.

Thus, Applicants respectfully assert that Okada fails to teach the above-identified limitation in claim 6. As a result, Applicants respectfully assert that that a *prima facie* case of obviousness has not been established with respect to claim 6.

### Claim 13

With regard to claim 13, the Office Action proposes modifying the teachings of Okada and Linzer in view of Matsutani. (See pages 5 and 6 of the Office Action). However, Applicants respectfully assert that the proposed modification of Okada and Linzer in view of Matsutani would change the principle of operation of Okada.

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) (see MPEP §2143.01 (VI)).

Okada teaches that each of two frame buffers (104a) and (104b) stores a B frame, a future I or P frame, and a past I or P frame. (See Fig. 1 and column 9, lines 14-19 of Okada). That is, Okada teaches that each of two frame buffers (104a) and (104b) stores multiple frames. Matsutani teaches that each of a first buffer memory and a second buffer memory has a capacity corresponding to at least a half of one frame of sequential data. (See column 5, lines 55-59 of Matsutani). Therefore, under the proposed modification, each of two frame buffers (104a) and (104b) of Okada stores less than one frame. However, Applicants respectfully assert that changing each of two frame buffers (104a) and (104b) of Okada to store less than one frame would change the principle of operation of Okada.

Okada, in particular column 9, lines 20-29, teaches that the I-Picture or P-Picture stored in each of forward reference areas (120a), (120b) and in each of rearward reference areas (121a), (121b) in the frame buffers (104a) and (104b) is used as base data for performing the forward prediction or the backward prediction and must be kept stored in each of the reference areas (120a), (120b), (121a), (121b) until the I-Picture or P-Picture is no longer necessary for performing the forward prediction or the backward prediction. Thus, the principle of operation of Okada involves storing at least one frame in each of the two frame buffers (104a) and (104b). As a result, Applicants respectfully assert that the proposed modification of Okada and Linzer in view of Matsutani would change the principle of operation of Okada. Thus, Applicants respectfully assert that claim 13 is patentable over Okada in view of Linzer and further in view of Matsutani.

#### Independent Claim 11

Claim 11 includes similar limitations to claim 1. Because of the similarities between claim 11 and claim 1, Applicants respectfully assert that the remarks provided above with regard to claim 1 apply also to claim 11. Accordingly, Applicants

respectfully assert that a *prima facie* case of obviousness has not been established with respect to claim 11.

#### Dependent Claim 14

Claim 14 depends from and incorporates all of the limitations of independent claim 11. Thus, Applicants respectfully assert that claim 14 is allowable at least based on an allowable claim 11. Additionally, because claim 14 includes similar limitations to claim 13, Applicants respectfully assert that the remarks provided above with regard to claim 13 apply also to claim 14. Thus, Applicants respectfully assert that claim 14 is patentable over Okada in view of Linzer and further in view of Matsutani.

#### Independent Claim 12

Claim 12 includes similar limitations to claim 1. Because of the similarities between claim 12 and claim 1, Applicants respectfully assert that the remarks provided above with regard to claim 1 apply also to claim 12. Accordingly, Applicants respectfully assert that a *prima facie* case of obviousness has not been established with respect to claim 12.

#### Dependent Claim 15

Claim 15 depends from and incorporates all of the limitations of independent claim 12. Thus, Applicants respectfully assert that claim 15 is allowable at least based on an allowable claim 12. Additionally, because claim 15 includes similar limitations to claim 13, Applicants respectfully assert that the remarks provided above with regard to claim 13 apply also to claim 15. Thus, Applicants respectfully assert that claim 15 is patentable over Okada in view of Linzer and further in view of Matsutani.

## CONCLUSION

Applicants respectfully request reconsideration of the claims in view of the remarks made herein. A notice of allowance is earnestly solicited.

At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account **50-4019** pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees to Deposit Account **50-4019** under 37 C.F.R. 1.16, 1.17, 1.19, 1.20 and 1.21.

Respectfully submitted,

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